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Abstract of the Disclosure

A method for increasing data transmission speed in an international standard (IS)-95B system includes the steps of: a) by an IWF interface unit, when receiving a frame relay (FR) frame from the IWF unit, counting total bytes included in the FR frame and storing the FR frame in a storage unit of an IWF interface unit; b) determining if data bytes included in the FR frame are larger than bytes needed to generate an inter system link protocol (ISLP) frame of maximum size; c) if the data bytes included in the FR frame are larger than the bytes needed to generate the ISLP frame of maximum size, generating and transmitting the ISLP frame of maximum size to base FR frame; controllers (BSCs) based on the station determining if remaining data bytes included in the FR frame that is stored in the storage unit are larger than the bytes needed to generate the ISLP frame of maximum size; e) and if the remaining data bytes are not larger than the bytes needed to generate the ISLP frame of maximum size, generating and transmitting the ISLP frame to the BSC based on the remaining data bytes and another FR frame transmitted from the IWF unit, otherwise repeating the step b).